Connecting via Winsock to STN

```
Welcome to STN International! Enter x:x
L* * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * *
FILE 'HOME' ENTERED AT 14:29:30 ON 17 SEP 2008
=> file reg
Uploading C:\Program Files\Stnexp\Queries\10567655.str
chain nodes :
23 24 25 26 27 28
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22
ring/chain nodes :
29
chain bonds :
7-23 \quad 8-26 \quad 9-13 \quad 22-25 \quad 23-24 \quad 23-28 \quad 24-25 \quad 25-29 \quad 26-27
ring bonds :
```

```
1 - 2 \quad 1 - 6 \quad 2 - 3 \quad 3 - 4 \quad 4 - 5 \quad 5 - 6 \quad 5 - 7 \quad 6 - 10 \quad 7 - 8 \quad 8 - 9 \quad 9 - 10 \quad 11 - 12 \quad 11 - 16 \quad 12 - 13 \quad 13 - 14 \quad 13 -
 14-15 15-16 17-18 17-22 18-19 19-20 20-21 21-22
exact/norm bonds :
23-24 23-28 24-25 26-27
exact bonds :
7-23 8-26 9-13 22-25 25-29
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 9-10 11-12 11-16 12-13 13-14
  14-15 15-16 17-18 17-22 18-19 19-20 20-21 21-22
isolated ring systems :
containing 1 : 11 : 17 :
Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom
20:Atom 21:Atom 22:Atom 23:CLASS 24:CLASS 25:CLASS 26:CLASS 27:Atom
28:CLASS 29:CLASS
L1 STRUCTURE UPLOADED
=> d 11
L1 HAS NO ANSWERS
                                            STR
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *
Structure attributes must be viewed using STN Express query preparation.
=> s 11 full
L3
                              277 SEA SSS FUL L1
=> file ca
=> s 13
L4
                               19 L3
=> d ibib abs fhitstr 1-19
L4 ANSWER 1 OF 19 CA COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:
                                                                       146:379839 CA
TITLE:
                                                                       Preparation of 3-(aminomethyl)guinoline-4-carboxamide
                                                                       N-oxides as neurokinin-3 (NK-3) receptor ligands
INVENTOR(S):
                                                                       Campbell, James B.; Albert, Jeffrey S.; Alhambra,
                                                                       Cristobal; Kang, James; Koether, Gerard M.; Simpson,
                                                                       Thomas R.; Woods, James; Li, Yan
PATENT ASSIGNEE(S):
                                                                       Astrazeneca AB, Swed.
SOURCE:
                                                                       PCT Int. Appl., 49pp.
                                                                       CODEN: PIXXD2
DOCUMENT TYPE:
                                                                       Patent
LANGUAGE:
                                                                       English
FAMILY ACC. NUM. COUNT: 1
```

PATENT INFORMATION:

PA	TENT				KIN		DATE			APPL:					D	ATE	
WO	2007				A1										2	0060	919
	W:	ΑE,	AG,	AL,	AM,	AT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
		GE,	GH,	GM,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KM,	KN,	KP,
		KR,	ΚZ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	LY,	MA,	MD,	MG,	MK,	MN,
		MW,	MX,	MY,	MZ,	NA,	NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RS,
		RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,	SV,	SY,	ΤJ,	TM,	TN,	TR,	TT,	TZ,
		UA,	UG,	US,	UZ,	VC,	VN,	ZA,	ZM,	ZW							
	RW:	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	ΙE,
		IS,	IT,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	ВJ,
		CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	ΝE,	SN,	TD,	TG,	BW,	GH,
		GM,	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	BY,
		KG,	KZ,	MD,	RU,	TJ,	TM										
EP	1940	795			A1		20080	0709		EP 20	006-	7996	88		2	0060	919
	R:	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,
		IS,	IT,	LI,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR	
IN	2008	DN02	402		A		20080	725									
PRIORIT	Y APP	LN.	INFO	. :						US 20	005-	7192	87P	1	P 2	0050	921
										WO 20	006-	SE10	66	1	W 2	0060	919
OTHER S	OURCE	(S):			MAR	PAT	146:3	37983	39								

AB Title compds. [I; R1 = H, (substituted) alkyl, cycloalkyl, alkoxycarbonyl; A = Ph, cycloalkyl; R2 = H, OH, NO2, NH2, cyano, halo, (substituted) alkyl, cycloalkyl alkoxy, alkoxyalkyl; m, n, q = 1-3; R3 = H, OH, NH2, NO2, cyano, halo, (substituted) alkyl, alkoxy, alkoxyalkyl; R4 = E(CH2)p; p = 0-5; E = N+O-R6R7, N-linked N-oxopyrrolidinyl, N-oxopiperidinyl, (substituted) N-oxopiperazinyl, N-oxomorpholinyl; R5 = H, OH, cyano, halo, R6, OR6, SR6, SOR6, SO2R6; R6, R7 = H, alkyl, alkenyl, alkynyl, carbocyclyl], were prepared Thus, pyrrolidine, 3-bromomethyl-2-phenyl-N-[(1S)-1-phenylpropyl]quinoline-4-carboxamide, and diisopropylethylamine were stirred together in CH2Cl2 for 1 h followed by cooling to 0° and multiple treatment with 3-ClC6H4C(0)00H to give 80% 3-[(1-oxidopyrrolidin-1-y1)methy1]-2-pheny1-N-[(1S)-1phenylpropyl]quinoline-4-carboxamide. TT 930281-33-7P

IT 930281-33-7P RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(claimed compound; preparation of aminomethylquinolinecarboxamide oxides as neurokinin-3 receptor ligands)

930281-33-7 CA RN

4-Quinolinecarboxamide, 3-[(1-oxido-1-pyrrolidinyl)methyl]-2-phenyl-N-(1phenylpropyl) - (CA INDEX NAME)

REFERENCE COUNT:

THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

6 L4 ANSWER 2 OF 19 CA COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 146:251747 CA

TITLE:

Preparatiion of alkylpyridyl quinolines as NK3

receptor modulators

INVENTOR(S): Albert, Jeffrey S.; Alhambra, Cristobal; Kang, James; Koether, Gerard M.; Simpson, Thomas R.; Woods, James; Li, Yan

PATENT ASSIGNEE(S): Astrazeneca AB, Swed. SOURCE: PCT Int. Appl., 45pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

P	ATENT	NO.			KIN	D	DATE						NO.		D.	ATE	
W	0 2007	0184	 66		A1		2007	0215							2	0060	809
	W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FΙ,	GB,	GD,
		GE,	GH,	GM,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KM,	KN,	KP,
		KR,	KZ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	LY,	MA,	MD,	MG,	MK,	MN,
		MW,	MX,	MZ,	NA,	NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RS,	RU,
		SC,	SD,	SE,	SG,	SK,	SL,	SM,	SY,	TJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,
		US,	UZ,	VC,	VN,	ZA,	ZM,	ZW									
	RW:	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,
		IS,	IT,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	BJ,
		CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	ΝE,	SN,	TD,	TG,	BW,	GH,
		GM,	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	BY,
		KG,	KZ,	MD,	RU,	TJ,	TM										
E	P 1915	361			A1		2008	0430	1	EP 2	006-	7696	03		2	0060	809
	R:	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,
		IS,	IT,	LI,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR	
II	N 2008	DN01	029		A		2008	0620		IN 2	008-	DN10	29		2	0080	206
PRIORI'	TY APP	LN.	INFO	. :					1	US 2	005-	7073	83P	1	P 2	0050	811
									1	NO 2	006-	SE93	5	1	N 2	0060	809

OTHER SOURCE(S):

MARPAT 146:251747

$$\begin{bmatrix} R^1 & A \\ R^2 \end{bmatrix}_n & Ph$$

$$0 & NH & 0$$

$$R^3 \\ R^4 & R^4$$

NH

AB The title compds. I [R1 = H, alkyl, cycloalkyl and alkylOC(0); A = Ph or cycloalkyl; R2 = H, OH, NH2, etc.; n = 1-3; R3 = H, OH, NH2, etc.; m = 1-3; R4 = (CH2)pAr1 (wherein p = 1-6; Ar1 = pyridyl); R5 = H, OH, CN, etc.; q = 1-3], useful for treatment or prophylaxis of a disease or condition in which modulation of the NK-3 receptor is beneficial (no specific data given), were prepared E.g., a multi-step synthesis of II.2TFA, starting from 3-(pyridin-4-yl)propionic acid, was given. Pharmaceutical compns. containing compound I is disclosed.

Et

925701-96-8P RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

(preparation of pyridylalkyl quinolinecarboxamides as NK3 receptor modulators)

- RN 925701-96-8 CA
- CN 4-Quinolinecarboxamide, 2-phenyl-N-(1-phenylpropyl)-3-(4-pyridinylmethyl)-(CA INDEX NAME)

REFERENCE COUNT:

- 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
- ANSWER 3 OF 19 CA COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 146:206219 CA TITLE: Preparation of heterocyclylmethylquinolinecarboxamides as neurokinin receptor antagonists. INVENTOR (S): Crawforth, James Michael; Williams, Brian John

PATENT ASSIGNEE(S): Merck Sharp & Dohme Limited, UK SOURCE: PCT Int. Appl., 33pp.

SOURCE: PCT Int. Appl., 33pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PA	TENT	NO.			KIN		DATE			APPL					D	ATE	
WO	2007	0129	00				2007	0201							2	0060	725
	W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
		GE,	GH,	GM,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KM,	KN,	KP,
		KR,	ΚZ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	LY,	MA,	MD,	MG,	MK,	MN,
		MW,	MX,	MZ,	NA,	NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RS,	RU,
		SC,	SD,	SE,	SG,	SK,	SL,	SM,	SY,	TJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,
		US,	UZ,	VC,	VN,	ZA,	ZM,	zw									
	RW:	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,
		IS,	IT,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	BJ,
		CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG,	BW,	GH,
		GM,	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	BY,
		KG,	KZ,	MD,	RU,	TJ,	TM										
AU	2006	2737	96		A1		2007	0201		AU 2	006-	2737	96		2	0060	725
CA	2616	547			A1		2007	0201		CA 2	006-	2616	547		2	0060	725
EP	1912	967			A1		2008	0423		EP 2	006-	7653	70		2	0060	725
	R:	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,
		IS,	IT,	LI,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR	
PRIORIT	Y APP	LN.	INFO	. :						GB 2	005-	1558	0		A 2	0050	729
										WO 2	006-0	GB50:	221	1	W 2	0060	725
OTHER S	OURCE	(S):			MAR	PAT	146:	2062	19								

AB Title compds. [I, X = F, Cl, Br, iodo; n = 0-2; A = (halo-substituted) Ph, thienyl, O = C-linked (bridged) azetidinyl, pyrrolidinyl, piperidinyl; Rl = N-linked H, alkyl, alkenyl, alkynyl, (substituted) cycloalkyl, aryl, heteroaryl, etc.; R2, R4, R5 = H, alkyl, alkenyl, alkynyl, cycloalkyl; R2R4 = atoms to form cycloalkyl, heterocyclyl; R3 = alkyl, alkenyl, alkynyl, cycloalkyl(alkyl), phenyl(alkyl); R6 = H, OH, O; R1R5 = atoms to form (substituted) N-heterocyclyl), were prepared Thus,

3-[[1-(tert-butoxycarbonyl)piperidin-4-yl]methyl]-8-fluoro-2phenylquinoline-4-carboxylic acid (preparation given) was added to a mixture prepared from DMF and (COC1)2 in CH2C12 at 0° followed by stirring for 2 h. Et3N and (S)-1-phenylpropylamine were added followed by stirring for 16 h at room temperature to give (S)-tert-Bu 4-[[8-fluoro-2-phenyl-4-[[(1phenylpropyl)amino|carbonyl|quinolin-3-yl|methyl|piperidine-1-carboxylate. I normally show NK2 and NK3 binding activity with IC50's of <1 µM.

923023-85-2P RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(claimed compound; preparation of heterocyclylmethylquinolinecarboxamides as neurokinin receptor antagonists)

RN 923023-85-2 CA

CM 4-Quinolinecarboxamide, 8-fluoro-2-phenyl-N-[(1S)-1-phenylpropyl]-3-(4piperidinylmethyl) - (CA INDEX NAME)

Absolute stereochemistry.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 4 OF 19 CA COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 144:488534 CA

Preparation of 4-quinolinecarboxamides useful for treatment of central nervous system diseases mediated by modulation of the NK3 receptor

INVENTOR(S): Porter, Roderick Alan; Smith, Paul William PATENT ASSIGNEE(S): Smithkline Beecham Corporation, USA

SOURCE: PCT Int. Appl., 31 pp.

CODEN: PIXXD2 DOCUMENT TYPE: Patent English

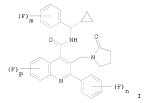
LANGUAGE: FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PAT	TENT	NO.			KIN	D	DATE			APPL	ICAT	I NOI	NO.		D	ATE	
						-											
WO	2006	0509	89		A1		2006	0518		WO 2	005-	EP12	203		2	0051	110
	₩:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KM,	KN,	KP,	KR,
		KZ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	LY,	MA,	MD,	MG,	MK,	MN,	MW,	MX,
		MZ,	NA,	NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,

TITLE:

```
SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC,
             VN, YU, ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
             CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
             GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM
                               20070829
                                           EP 2005-810209
                         A1
         R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, HR
     JP 2008519799
                         т
                                20080612
                                            JP 2007-540605
     US 20080103173
                         A1
                                20080501
                                            US 2007-718910
                                                                   20071113
PRIORITY APPLN. INFO.:
                                            GB 2004-25075
                                                                A 20041112
                                            WO 2005-EP12203
                                                                W 20051110
OTHER SOURCE(S):
                       MARPAT 144:488534
GI
```



AB 4-Quinolinecarboxamides [I, m, n, p = 0.1; e.g., N-[(S)-cyclopropy](3-fluoropheny)]nethyl]-2-[2-oxo-1-pyrrolidiny]methyl]-2-phenyl-4-quinolinecarboxamide; NK3 binding affinity pKi = 8.5], useful for treatment of CNS diseases (e.g., psychosis) mediated by modulation of NK3 receptors, are prepared in a multi-step process.

IT 887330-02-1P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of 4-quinolinecarboxamides useful for treatment of central nervous system diseases mediated by modulation of the NK3 receptor) 887330-02-1 CA

CN 4-Quinolinecarboxamide, N-[(S)-cyclopropyl(3-fluorophenyl)methyl]-3-[(2-oxo-1-pyrrolidinyl)methyl]-2-phenyl- (CA INDEX NAME)

Absolute stereochemistry.

RN

REFERENCE COUNT:

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

2 L4 ANSWER 5 OF 19 CA COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 142:219291 CA

TITLE: Preparation of quinoline-4-carboxamide derivatives as neurokinin 3 receptor antagonists

INVENTOR(S): Chan, Wai Ngor; Smith, Paul William; Wyman, Paul

Adrian PATENT ASSIGNEE(S): Smithkline Beecham Corporation, USA

SOURCE: PCT Int. Appl., 42 pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA	TENT :	NO.			KIN	D	DATE		i	APPL	ICAT	ION I	NO.		D.	ATE	
WO	2005	0145	75		A1		2005	0217	1	WO 2	004-	EP88	42		2	0040	805
	W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	KZ,	LC,
		LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	NI,
		NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,
		TJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW
	RW:	BW,	GH,	GM,	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,
		AZ,	BY,	KG,	KΖ,	MD,	RU,	TJ,	TM,	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,
		EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,	IT,	LU,	MC,	NL,	PL,	PT,	RO,	SE,
		SI,	SK,	TR,	BF,	ΒJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,
		SN,	TD,	TG													
EP	1651	632			A1		2006	0503	1	EP 2	004-	7413	82		2	0040	805
		LT,															
JP	2007	5018	26		T		2007	0201		JP 2	006-	5229	66		2	0040	805
US	2007	0142	431		A1		2007	0621	1	US 2	006-	5676	55		2	0060	718
PRIORIT	Y APP	LN.	INFO	. :					- 0	GB 2	003-	1872	7		A 2	0030	808
									1	NO 2	004 - 1	EP88	42	1	vi 2	0040	805
OTHER S	DURCE	(S):			CAS	REAC	T 14	2:219	9291	; MA	RPAT	142	:219	291			

G1

AB Title compds. represented by the formula I [wherein Rl = (cyclo)alkyl or acetyl, R2 = (un)substituted pyrazolyl, triazolyl or tetrazolyl; m, n, p = independently 0-2; X, Y, Z = F; and pharmaceutically acceptable salts, solvates or prodrugs thereof] were prepared as neurokinin 3 (NK3) receptor antagonists. For example, II was given in a multi-step synthesis starting from the reaction of (S)-(+)-valinol with benzaldehyde. I showed binding selectivity to the NK3 receptor in preference to the NK1 and NK2 receptors. Thus, I and their pharmaceutical compns. are useful as medicaments particularly for the treatment of disorders of the central nervous system (CNS) (no data).

IT 844470-31-1P

- RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
- (preparation of triazolyl, pyrazolyl and tetrazolyl quinoline-4-carboxamides as NK3 receptor antagonists)

RN 844470-31-1 CA

CN 4-Quinolinecarboxamide, N-[(S)-cyclopropylphenylmethyl]-2-(3-fluorophenyl)-3-(2H-1,2,3-triazol-2-vlmethyl)-, hydrochloride (1:?) (CA INDEX NAME)

Absolute stereochemistry.

●x HCl

REFERENCE COUNT:

3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 19 CA COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 140:71043 CA

TITLE: Combination treatment for depression and anxiety by

NK1 and NK3 antagonists
INVENTOR(S): Sobolov-Jaynes, Susan Beth; Lowe, John Adams, III;

McLean, Stafford
PATENT ASSIGNEE(S): Pfizer Products Inc., USA

SOURCE: PCT Int. Appl., 124 pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

	rent :				KIN	D	DATE			APPL	ICAT	ION :	NO.		D	ATE	
	2004				A1	_	2003	1231		WO 2	003-	IB25	 16		2	0030	610
	W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,
							DK,										
		GM,	HR,	HU,	ID,	IL,	IN,	IS.	JP,	KE,	KG,	KP,	KR,	KZ,	LC,	LK,	LR,
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	OM,	PH,
		PL,	PT,	RO,	RU,	SD,	SE,	SG,	SK,	SL,	TJ,	TM,	TN,	TR,	TT,	TZ,	UA,
		UG,	US,	UZ,	VN,	YU,	ZA,	ZM,	ZW								
	RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	AZ,	BY,
		KG,	KZ,	MD,	RU,	TJ,	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,
		FI,	FR,	GB,	GR,	HU,	IE,	IT,	LU,	MC,	NL,	PT,	RO,	SE,	SI,	SK,	TR,
		BF,	BJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG
US	2004	0006	135		A1		2004	0108		US 2	003-	3865	82		2	0030	312
CA	2488	311			A1		2003	1231		CA 2	003-	2488	311		2	0030	610
ΑU	2003	2392	80		A1		2004	0106		AU 2	003-	2392	80		2	0030	610
ΕP	1517	708			A1		2005	0330		EP 2	003-	7328	58		2	0030	610
	R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
		IE.	SI.	LT.	LV.	FI.	RO,	MK.	CY.	AL.	TR.	BG.	CZ.	EE.	HU.	SK	

BR 200301	1898	A	20050412	BR	2003-11898		20030610
JP 2005533	3080	T	20051104	JP	2004-515136		20030610
MX 2005PA	00260	A	20050411	MX	2005-PA260		20050103
PRIORITY APPLN	. INFO.:			US	2002-389975P	P	20020619
				WO	2003-IB2516	W	20030610

OTHER SOURCE(S):

MARPAT 140:71043 The invention discloses a method for treating depression or anxiety in a

mammal, including a human, by administering to the mammal a CNS-penetrant NK1 receptor antagonist (e. g., a substance P receptor antagonist) in combination with an NK3 antagonist agent. It also relates to pharmaceutical compns. containing a pharmaceutically acceptable carrier, a CNS-penetrant NK1 receptor antagonist and an NK3 antagonist.

тт 216372-53-1

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (NK1 and NK3 antagonist combination treatment for depression and

anxiety) 216372-53-1 CA RN

CN 4-Quinolinecarboxamide, 3-[(4-oxo-1-piperidinv1)methv1]-2-phenv1-N-[(1S)-1phenylpropyll- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

REFERENCE COUNT:

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

3 ANSWER 7 OF 19 CA COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 138:378520 CA

TITLE: A pharmacophore model for NK2 antagonist comprising compounds from several structurally diverse classes AUTHOR(S): Poulsen, Anders; Liljefors, Tommy; Gundertofte, Klaus;

Bjornholm, Berith Department of Medicinal Chemistry, The Royal Danish CORPORATE SOURCE: School of Pharmacy, Copenhagen, DK-2100, Den.

Journal of Computer-Aided Molecular Design (2002), SOURCE: 16(4), 273-286

CODEN: JCADEQ; ISSN: 0920-654X

PUBLISHER: Kluwer Academic Publishers

DOCUMENT TYPE: Journal LANGUAGE: English

A neurokinin 2 (NK2) antagonist pharmacophore model has been developed on the basis of five non-peptide antagonists from several structurally diverse classes. To evaluate the pharmacophore model, another 20

antagonists were fitted to the model. By use of exhaustive conformational anal. (MMFFs force field and the GB/SA hydration model) and least-squares mol. superimposition studies, 23 of the 25 antagonists were fitted to the

model in a low energy conformation with a low RMS value. The pharmacophore model is described by four pharmacophore elements: Three hydrophobic groups and a hydrogen bond donor represented as a vector. The hydrophobic groups are generally aromatic rings, but this is not a requirement. The antagonists bind in an extended conformation with two aromatic rings in a parallel displaced and tilted conformation. The model was able to explain the enantioselectivity of SR48968 and GR159897. 527679-20-5

RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (pharmacophore model for NK2 antaqonist)

RN 527679-20-5 CA CN 4-Quinolinecarb

4-Quinolinecarboxamide, 2-phenyl-3-[[4-(2-phenylethy1)-1-piperaziny1]methy1]-N-[(1R)-1-phenylpropy1]- (CA INDEX NAME)

Absolute stereochemistry.

REFERENCE COUNT: 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 19 CA COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 137:310826 CA

TITLE: Preparation of quinoline derivatives as NK3 and NK2 receptor antagonists

INVENTOR(S): Farina, Carlo; Giardina, Giuseppe Arnaldo Maria; Grugni, Mario; Perugini, Lorenzo

PATENT ASSIGNEE(S): Glaxosmithkline S.P.A., Italy SOURCE: PCT Int. Appl., 89 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PAT	TENT	NO.			KIN	D	DATE			APPL	ICAT	ION	NO.		D	ATE	
WO	2002	0836	45		A1		2002	1024		WO 2	002-	EP40	69		2	0020	411
	W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,
		co,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	KZ,	LC,	LK,	LR,
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	OM,	PH,
		PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ΤJ,	TM,	TN,	TR,	TT,	TZ,
		UA,	UG,	US,	UZ,	VN,	YU,	ZA,	ZM,	zw							
	RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AT,	BE,	CH,
		CY,	DE,	DK,	ES,	FI,	FR,	GB,	GR,	IE,	IT,	LU,	MC,	NL,	PT,	SE,	TR,
		BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG

AU	2002	3025	28		A1		2002	1028		AU	20	02-3	3025	28			20020	411	
EP	1377	555			A1		2004	0107		EP	20	02-	7301	47			20020	411	
EP	1377	555			B1		2007	0124											
	R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR	٠, ١	IT,	LI,	LU,	NL,	SE	, MC,	PT,	
		IE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL	, :	TR							
JP	2004	5291	45		T		2004	0924		JΡ	20	02-5	814	02			20020	411	
AT	3525	43			T		2007	0215		AΤ	20	02-	7301	47			20020	411	
US	2004	0152	730		A1		2004	0805		US	20	04-4	1745	56			20040	315	
US	2005	01820	093		A1		2005	0818		US	20	05 - 1	1029	43			20050	411	
PRIORIT:	APP	LN.	INFO	. :						GB	20	01-9	122			A	20010	411	
										WO	20	02-E	EP40	69		W	20020	411	
										US	20	04-4	1745	56		В1	20040	315	
OTHER SO	DURCE	(S):			MARI	PAT	137:	31082	26										

- AB Quinoline derivs. of formula I [R1 = H, alkyl, R2 = arylalkyl, etc.; R3 = H, alkyl, cycloalkyl; R4 = H, F; R5 = alkyl, cycloalkyl, aryl, R6 = H, alkyl, aryl, alkoxy, OH, halo, CN, etc.; R7 = H, alkoxy, halo, R6R7 = alkylenedioxy; n = 1-6] are prepared as NK3 and NK2 receptor antagonists. Thus, II was prepared in several steps. The most potent compds. had IC50 values of 0.1-1000 nM in binding assays on NK3 receptors.
- 11 4/3248-48-5F RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
- (preparation of quinoline derivs. as NK3 and NK2 receptor antagonists) RN $473248{-}48{-}5\,$ CA
- CN 4-Quinolinecarboxamide, 3-([1,4'-bipiperidin]-1'-ylmethy1)-N-

(diphenylmethyl)-2-phenyl- (CA INDEX NAME)

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 9 OF 19 CA COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: $137\!:\!20387$ CA

TITLE: Preparation of 3-(piperazinylalkyl)-4-

quinolinecarboxamides as NK-3 and NK-2 antagonists for treatment of respiratory diseases and CNS disorders INVENTOR(S): Farina, Carlo; Gagliardi, Stefania; Giardina,

Giuseppe; Grugni, Mario; Nadler, Guy Marguerite Marie Gerard; Martinelli, Marisa

PATENT ASSIGNEE(S): Glaxosmithkline S.P.A., Italy; Laboratoire

Glaxosmithkline S.A.S.
SOURCE: PCT Int. Appl., 119 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	TENT				KIN						ICAT					ATE	
	2002															0011	126
	W:	ΑE,	AG,	AL,	AM,	AT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	ΒZ,	CA,	CH,	CN,
		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FΙ,	GB,	GD,	GE,	GH,
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	ΚZ,	LC,	LK,	LR,
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	ΜZ,	NO,	NZ,	OM,	PH,
		PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ΤJ,	TM,	TR,	TT,	TZ,	UA,
		UG,	US,	UZ,	VN,	YU,	ZA,	ZM,	ZW								
	RW:										TZ,						
											IT,						
											GW,						
	2002																
EP	1351																
	R:										IT,	LI,	LU,	NL,	SE,	MC,	PT,
							RO,										
	2004																
	2004																
	2006						2006	1005									
RIORIT	RITY APPLN. INFO.:										000-						
											001-					0010	
											001-						
										US 2	003-	4329	25		B1 2	0031	124
THER S	DURCE	(S):			MAR	PAT	137:	2038	7								

Page 15

G1

Title compds. I [wherein R1 = H or alkyl; R2 = (un)substituted AB (hetero)aryl or cycloalkyl; R3 = H, alkyl, or cycloalkyl(alkyl) (un) substituted by 1 or more fluorines; R4 = H or R8R9; R5 = branched or linear alkyl, cycloalkyl(alkyl), aryl, or single or fused-ring aromatic (un) substituted heterocyclic group; R6 = H, or 1-3 of alkyl, alkenyl, aryl, alkoxy, OH, halo, NO2, cyano, CO2H, alkylcarboxy(alkyl), haloalkyl, NH2, or (di)(alkyl)amino; or R6 = a bridging alkyl or dioxyalkylene; R7 = H or halo; R8 = (un)substituted alkyl or alkenyl; R9 = S(O2)R10, S(02) OR10, ONO, CO2R10, CONR11R12, or CN; R10 = H, (cyclo) alkyl, or aryl; R11 and R12 = independently H or alkyl; R18 = H or up to 3 oxo groups; any of R2, R5, R8, R10, R11, or R12 may be (un)substituted 1 or more times by halo, OH, NH2, cyano, NO2, CO2H, or oxo; n = 1-6; with 26 compds. excluded; and their pharmaceutically acceptable salts or hydrates] were prepared I are a novel class of potent non-peptide neurokinin-3 (NK-3) antagonists, some of which fall within the generic scope of WO 00/31037. I are far more stable metabolically and show improved oral bioavailability compared to the known peptidic NK-3 receptor antagonists (no data). In addition, I have good NK-2 antagonist activity and are considered to be of potential use in the prevention and treatment of a wide variety of clin. conditions which are characterized by over-stimulation of tachykinin receptors, in particular NK-3 and NK-2. Forty-eight specific (S)-isomeric compds. I were prepared For instance, 4-carboxy-3-methyl-2-phenylquinoline was subjected to the sequence of (1) Me esterification; (2) α-bromination; (3) amination of the bromide with piperazine-1-carboxylic acid tert-Bu ester; (4) ester hydrolysis (95%); and (5) amidation with (S)-1-phenylethylamine to give the title compound II. In binding assays using human NK-2 receptors and guinea pig and human NK-3 receptors, the most potent I exhibited IC50 values ranging from 0.5 nM to 1000 nM and from 0.1 nM to 1000 nM. resp.

T 425622-13-5P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(NT-2 and NT-3 receptor antagonist; preparation of piperazinylalkyl quinolinecarboxamides as NK-3 and NK-2 antagonists for treatment of respiratory diseases and CNS disorders)

RN 425622-13-5 CA

CN 4-Quinolinecarboxamide, 2-phenyl-N-[(1S)-1-phenylethyl]-3-(1-piperazinylmethyl)- (CA INDEX NAME)

Absolute stereochemistry.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 10 OF 19 CA COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 137:20302 CA

TITLE: Preparation of 3-(piperidinylalkyl)-4-

quinolinecarboxamides as NK-3 and NK-2 antagonists for treatment of respiratory diseases and CNS disorders INVENTOR(S): Farina, Carlo; Giardina, Giuseppe; Gruqni, Mario;

Nadler, Guy Marguerite Marie Gerard

PATENT ASSIGNEE(S): Glaxosmithkline S.P.A., Italy; Laboratoire Glaxosmithkline S.A.S.

SOURCE: PCT Int. Appl., 91 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PAT	ENT I	NO.			KIN	D	DATE		1	APPL	ICAT	ION I	NO.		D	ATE		
						_												
WO	2002	0441	54		A1		2002	0606	1	WO 2	001-	EP13	832		2	0011	126	
	W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,	
		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	ΚZ,	LC,	LK,	LR,	
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	OM,	PH,	
		PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ΤJ,	TM,	TR,	TT,	TZ,	UA,	
		UG,	US,	UZ,	VN,	YU,	ZA,	ZM,	ZW									
	RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	ΑT,	BE,	CH,	
		CY.	DE.	DK.	ES.	FT.	FR.	GB.	GR.	TE.	TT.	LU.	MC.	NI	PT.	SE.	TR.	

	BF	BJ,	CF,	CG,	CI, CM,	GA,	GN, GO	2, GW,	ML, MR,	NE, S	SN, TD, TG
AU	20020160	060		A	2002	0611	AU	2002-	16060		20011126
EP	1339691			A1	2003	0903	EP	2001-	998541		20011126
	R: AT	BE,	CH,	DE,	DK, ES,	FR,	GB, GE	R, IT,	LI, LU,	NL, S	SE, MC, PT,
	IE,	SI,	LT,	LV,	FI, RO,	MK,	CY, AI	, TR			
JP	20045170	79		T	2004	0610	JP	2002-	546524		20011126
US	20040102	2633		A1	2004	0527	US	2003-	433595		20030925
US	20050070)574		A1	2005	0331	US	2004-	949185		20040924
US	20060163	L004		A1	2006	0720	US	2006-	331623		20060113
PRIORITY	APPLN.	INFO	. :				GB	2000-	28964	A	20001128
							WO	2001-	EP13832	W	20011126
							US	2003-	433595	B:	20030925
							US	2004-	949185	B:	20040924

OTHER SOURCE(S): MARPAT 137:20302 GI

AB Title compds. I [wherein R1 = H or alkyl; R2 = R8R9; R3 = H or (un) substituted alkyl or cycloalkyl(alkyl); R4 = NR10R11; R5 = (un) substituted alkyl, cycloalkyl(alkyl), aryl, or single or fused-ring aromatic heterocyclic group; R6 = H, or 1-3 of alkyl, alkenyl, aryl, alkoxy, OH, halo, NO2, cyano, CO2H, carboxamido, sulfonamido, alkoxycarboxyl, haloalkyl, acyloxy, (d1) (alkyl) amino, alkoxyamido, alkoxycarboxylate, or an esterified derivative thereof; R7 = H or halo; n = 1-6; R8 = single bond or (un) substituted alkyl; R9 = (un) substituted cycloalkyl or (hetero)aryl; R10 and R11 = independently H or alkyl; or NR10R11 = (un) substituted, (un) saturated heterocycle; any of R1, R3, R5, R8, R9, R10, R11, or R12 may be (un) substituted 1 or more times by halo, OH, NH2, cyano, NO2, CO2H, or

oxo; with 20 compds. excluded; and their pharmaceutically acceptable salts or hydrates] were prepared I are a novel class of potent non-peptide neurokinin-3 (NK-3) antagonists, some of which fall within the generic scope of WO 00/31037. I are far more stable metabolically and show improved oral bioavailability compared to the known peptidic NK-3 receptor antagonists (no data). In addition, I have good NK-2 antagonist activity and are considered to be of potential use in the prevention and treatment of a wide variety of clin. conditions which are characterized by over-stimulation of tachykinin receptors, in particular NK-3 and NK-2. Thirty-three specific compds. I were prepared For instance, 3-bromomethyl-2-phenylquinoline-4-carboxylic acid Me ester (preparation given) was subjected to the sequence of (1) amination of the bromide with 4-piperidinopiperidine (56%), (2) acid hydroylsis of the ester, (3) amidation with 3-hydroxybenzylamine (20.6%) to give the title compound II. In binding assays using human NK-2 and NK-3 receptors, the most potent I exhibited IC50 values ranging from 0.5 nM to 1000 nM and 0.1 nM to 1000 nM, resp.

ΙT 433980-91-7P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(NK-2 and NK-3 receptor antagonist; preparation of piperidinylalkyl quinolinecarboxamides as NK-3 and NK-2 antagonists for treatment of respiratory diseases and CNS disorders)

RN

433980-91-7 CA
Acetic acid, 2-[[3-([1,4'-bipiperidin]-1'-ylmethyl)-2-phenyl-4-[[[(1S)-1phenylpropyllaminolcarbonyll-7-quinolinylloxyl-, ethyl ester (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

REFERENCE COUNT:

THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 11 OF 19 CA COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: TITLE:

137:6099 CA Preparation of 3-(piperidinvlalkyl)-4-

quinolinecarboxamides as NK-3 and NK-2 antagonists for treatment of respiratory diseases and CNS disorders INVENTOR(S): Farina, Carlo; Giardina, Giuseppe; Grugni, Mario; Nadler, Guy Marquerite Marie Gerard

Glaxosmithkline S.P.A., Italy; Laboratoire

PATENT ASSIGNEE(S): Glaxosmithkline S.A.S. SOURCE: PCT Int. Appl., 62 pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND DATE	APPLICATION NO.	DATE				
WO 2002043734	A1 20020606	WO 2001-EP14140	20011127				
W: AE, AG, AL,	AM, AT, AU, AZ, B	BA, BB, BG, BR, BY, BZ	, CA, CH, CN,				
CO, CR, CU,	CZ, DE, DK, DM, D	Z, EC, EE, ES, FI, GB	, GD, GE, GH,				
GM, HR, HU,	ID, IL, IN, IS, J	IP, KE, KG, KP, KR, KZ	, LC, LK, LR,				
LS, LT, LU,	LV, MA, MD, MG, M	MK, MN, MW, MX, MZ, NO	, NZ, OM, PH,				
PL, PT, RO,	RU, SD, SE, SG, S	SI, SK, SL, TJ, TM, TR	, TT, TZ, UA,				
		W, AM, AZ, BY, KG, KZ					
		L, SZ, TZ, UG, ZM, ZW					
		R, IE, IT, LU, MC, NL					
		N, GO, GW, ML, MR, NE					
		AU 2002-21923					
		EP 2001-998350					
		GB, GR, IT, LI, LU, NL					
	LV, FI, RO, MK, C		, 52, 110, 11,				
		JP 2002-545704	20011127				
PRIORITY APPLN. INFO.:	1 20040702	GB 2000-28963					
INIONIII ALIBN. INIO		GB 2001-9120					
		WO 2001-F120					
OTHER COHROETS.	Mannag 127.6000	WO 2001-EP14140	W 20011127				
OTHER SOURCE(S):	MARPAT 137:6099						

GI

Title compds. I [wherein R1 = H or alkyl; R2 = (hetero)aryl or cycloalkyl; R3 = H or alkyl, (un)substituted by 1 or more fluorines; R4 = NR8R9 or R12; R5 = branched or linear alkyl, cycloalkyl(alkyl), aryl, or single or fused-ring aromatic heterocyclic group; R6 = H, or 1-3 of alkyl, alkenyl, arvl, alkoxy, OH, halo, NO2, cyano, CO2H, carboxamido, sulfonamido, alkoxycarbonyl, CF3, acyloxy, or (di)(alkyl)amino; R7 = H or halo; n = 1-6; R8 = H or Me; R9 = H, (cyclo)alkyl, aryl, or R10R11; or R8R9 form an (un) substituted heterocyclic ring; R10 = (cyclo) alkyl or aryl; R11 = carboxy or alkylcarboxy; R12 = R13 or OR13; R13 = H or alkyl or aryl, (un) substituted by 1 or more fluorines; any of R2, R5, R9, and R10 may be (un)substituted 1 or more times by halo, OH, NH2, cyano, NO2, CO2H, or oxo; with 1 compound excluded; and their pharmaceutically acceptable salts or hydrates] were prepared I are a novel class of potent non-peptide neurokinin-3 (NK-3) antagonists, some of which fall within the generic scope of WO 00/31037. I are far more stable metabolically and show improved oral bioavailability compared to the known peptidic NK-3 receptor antagonists (no data). In addition, I have good NK-2 antagonist activity and are considered to be of potential use in the prevention and treatment of a wide variety of clin. conditions which are characterized by over-stimulation of tachykinin receptors, in particular NK-3 and NK-2. Eleven specific (S)-isomeric compds. I were prepared, and their general stereochem. forms are claimed. For instance, 3-methyl-2-phenylquinoline-4-

^{*} STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

carbonyl chloride (6-step preparation given) was subjected to a sequence of (1) t-Bu esterification (17.2%), (2) α -bromination (80%), (3) amination of the bromide with 4-[(1-piperidin-4-ylmethanoy1)amino]benzoic acid Et ester (80%), (4) ester hydrolysis, and (5) amidation with (S)-(+)-1-cyclohexylethylamine (90%) to give the title compound II. In binding assays using human NK-2 receptors, the most potent I had IC50 values ranging from 0.5 nM to 1000 nM. 433712-73-3P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(NK-3 and NK-2 antagonist; preparation of piperidinylalkyl quinolinecarboxamides as NK-3 and NK-2 antagonists for treatment of respiratory diseases and CNS disorders)

433712-73-3 CA RN

CN 4-Quinolinecarboxamide, 2-phenyl-N-[(1S)-1-phenylethyl]-3-[[4-(1pyrrolidinylcarbonyl)-1-piperidinyl]methyl]- (CA INDEX NAME)

Absolute stereochemistry.

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 12 OF 19 CA COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 136:386030 CA

TITLE: Ouinoline derivatives as NK-3 and NK-2 antagonists

INVENTOR(S): Farina, Carlo: Gagliardi, Stefania: Giardina, Giuseppe; Grugni, Mario; Martinelli, Marisa; Nadler,

Guy Marguerite Marie Gerard

PATENT ASSIGNEE(S): Glaxosmithkline S.p.A., Italy; Laboratoire

Glaxosmithkline SOURCE:

PCT Int. Appl., 71 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE:

English FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

DATE PATENT NO. KIND APPLICATION NO. ____ -----WO 2002038547 A1 20020516 WO 2001-EP13139 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,

LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG AU 2002020702 Α 20020521 AU 2002-20702 20011112 EP 1334089 A1 20030813 EP 2001-993602 20011112 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR JP 2004517062 Т 20040610 JP 2002-541083 20011112 US 20040082589 A1 20040429 US 2003-416596 20031023 US 20070015766 A1 20070118 US 2006-426414 20060626 PRIORITY APPLN. INFO .: GB 2000-27696 A 20001113 GB 2001-9119 A 20010411 W 20011112 WO 2001-EP13139 B1 20031023 US 2003-416596

OTHER SOURCE(S): MARPAT 136:386030

AB Title compds. I and their pharmaceutically acceptable salts or hydrates are claimed [wherein: Rl = H or alkyl; R2 = aryl, cycloalkyl, or heteroaryl; R3 = H or Cl-3 alkyl, (un)substituted by 1 or more fluorines; R4 = H, R8NR9R10, R1R13, or R11R12R13; R5 = branched or linear alkyl, cycloalkyl(alkyl), aryl(alkyl), or single or fused-ring aromatic heterocyclic group; R6 = H, or 1-3 of alkyl, alkenyl, aryl, alkoxy, OH, halo, NO2, cyano, CO2H, carboxamido, sulfonamido, alkoxycarbonyl, CP3, acyloxy,

(di) (alkyl) amino; R7 = H, halo; n = 1-6; R8 = bond or alkylene; R9, R10 =H, alkyl, cycloalkyl(alkyl), aryl(alkyl); or NR9R10 = (un)saturated (fluoro)heterocyclyl; R11 = alkyl, alkenyl, (hetero)aryl, (un)saturated carbocyclyl with ≥1 N/O/S atom(s), cycloalkyl, etc.; R12 = (un) substituted alkyl, alkoxy; R13 = H, CO2R14; R14 = H, alkyl; any of R2, R5, R8, R9, R10, R11, R12, and R14 may be substituted by halo, OH, amino, cvano, NO2, CO2H, or oxo; with specific exclusion of 14 compds. | Also claimed is a process for preparing the compds., pharmaceutical compns. comprising them, and their use in medicine. I are a novel class of potent non-peptide NK-3 antagonists, some of which fall within the generic scope of WO 00/31037. I are also far more stable from a metabolic point of view than the known peptidic NK-3 receptor antagonists (no data), and are of potential therapeutic utility. I also have good NK-2 antagonist activity, and are therefore considered to be of potential use in the prevention and treatment of a wide variety of clin. conditions which are characterized by overstimulation of tachykinin receptors, in particular NK-3 and NK-2. I also show improved oral bioavailability (no data). Approx. 25 specific (S)-isomeric compds. I were prepared, and their general stereochem. forms are claimed. For instance, 3-methyl-2-phenylquinoline-4-carboxylic acid was subjected to a sequence of: (1) Me esterification; (2) α-bromination; (3) amination of the bromide with Fmoc-piperazine; (4) ester hydrolysis; (5) amidation with (S)-1-phenylpropylamine; (6) deprotection at Fmoc; (7) coupling with N-BOC-β-alanine; and (8) deprotection at BOC; to give title compound II, isolated as the di-HCl salt. In binding assays using human and guinea pig NK-3 receptors, and human NK-2 receptors, the most potent I had IC50 values in the range of 0.1-1000 nM for NK-3, and 0.5-1000 nM for NK-2. Antagonist behavior of I at NK-3 receptors was evidenced by reversal of the effects of senktide and NKB, and antagonist activity at NK-2 receptors was indicated by reversal of the effects of NKA.

T 425621-62-IP, (-)-(S)-N-(1-Phenylpropyl)-3-[[4-(3-aminopropionyl)piperazin-1-yl]methyl]-2-phenylquinoline-4-carboxamide dihydrochloride
RI: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

(drug candidate; preparation of quinoline derivs. as NK-3 and NK-2 antagonists)

RN 425621-62-1 CA

CN 4-Quinolinecarboxamide, 3-[[4-(3-amino-1-oxopropyl)-1-piperazinyl]methyl]-2-phenyl-N-[(1S)-1-phenylpropyl]-, hydrochloride (1:2) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

● 2 HC1

REFERENCE COUNT:

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

3 L4 ANSWER 13 OF 19 CA COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 136:369740 CA

TITLE: Preparation of piperazinylalkylquinoline-4-

carboxamides as NK-3 and NK-2 receptor antagonists INVENTOR(S): Farina, Carlo; Giardina, Giuseppe; Grugni, Mario; Nadler, Guy Marguerite Marie Gerard

PATENT ASSIGNEE(S): Glaxosmithkline S.p.A., Italy; Laboratoire

Glaxosmithkline S.A.S.

SOURCE: PCT Int. Appl., 46 pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PATENT NO.				KIND DATE					ICAT	DATE						
	WO 2002038548			A1	A1 20020516												
	W:	AE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,
		co,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	KZ,	LC,	LK,	LR,
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	PH,	PL,
		PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	TJ,	TM,	TR,	TT,	TZ,	UA,	UG,
		US,	UZ,	VN,	YU,	ZA,	ZW										
	RW:	GH,	GM,	KΕ,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZW,	ΑT,	BE,	CH,	CY,
		DE,	DK,	ES,	FI,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	PT,	SE,	TR,	BF,
		ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG	
AU	2002	0150	43		A		2002	0521		AU 2	002-	1504	3		2	0011	112
EP	1334	088			A1		2003	0813		EP 2	001-	9835	84		2	0011	112
	R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GΒ,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
								MK,									
JP	2004	5131	65		T		2004	0430		JP 2	002-	5410	84		2	0011	112
	2004															0031	
US	2006	0235	026														
PRIORITY	Y APP	LN.	INFO	. :						GB 2	000-	2770	1	- 1	A 2	0001	113

WO 2001-EP13141 W 20011112

OTHER SOURCE(S): MARPAT 136:369740

GI

0 NHCR1R2R3 R6 (CH₂)n-N NSO₂R⁴

- AB Title compds. [I, Rl = H, alkyl; R2 = aryl, cycloalkyl, heteroaryl; R3 = H, alkyl, optionally substituted by 21 F; R4 = R8R9; R8 = bond, alkyl, aryl; R9 = H, COO R10, NR1R12; R10 = H, alkyl; R11, R12 = H, alkyl; R5 = alkyl, cycloalkyl, cycloalkylakyl, aryl, single or fused ring heteroaryl; R6 = H, alkyl, alkenyl, aryl, alkoxy, OH, halo, NO2, cyano, carboxy, carboxamido, sulfonamido, alkoxycarbonyl, C73, acyloxy, amino; R7 = H, halo; n = 1-6; any of R2, R5, R8, R10, R11, R12 may be substituted by halo, hydroxy, amino, cyano, NO2, CO2H, oxol, were prepared Thus, 2-phenyl-3-pjerazin-1-yhethylquinoline-4-carboxylic acid ((S)-2-methyl-1-phenylpropyl)amide (preparation given) in MeCN was treated with EtOZCHZCH2SOZC1 and disopropylethylamine; the mixture was stirred 15 h at room temperature and for 3 h at 50° to give 3-[4-[4-((S)-2-methyl-1-phenylpropylcarbomcyl)-2-phenylquinolin-3-yhmethyllpiperazine-1-sulfonylpropionic acid Me ester. The most potent I bind to NK-2
- receptors with IC50 = 0.5-1000 nM. IT 216372-65-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of)

RN 216372-65-5 CA

CN 4-Quinolinecarboxamide, 2-phenyl-N-[(1S)-1-phenylpropy1]-3-(1-piperazinylmethyl)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

REFERENCE COUNT:

1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 14 OF 19 CA COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 136:273215 CA

TITLE: Combination of an NK-3 receptor antagonist and a CNS-penetrant NK-1 receptor antagonist for treating

depression and anxiety

INVENTOR(S): Lowe, John Adams, III; McLean, Stafford;

Sobolov-Jaynes, Susan Beth PATENT ASSIGNEE(S): Pfizer Products Inc., USA

SOURCE: Eur. Pat. Appl., 65 pp.

CODEN: EPXXDW DOCUMENT TYPE: Patent

LANGUAGE: English FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE				
EP 1192952	A2	20020403	EP 2001-307657	20010910				
EP 1192952	A3	20030326						
R: AT, BE, CH,	DE, DK,	. ES, FR, GB,	GR, IT, LI, LU, NL,	SE, MC, PT,				
IE, SI, LT,	LV, FI,	, RO						
CA 2357901	A1	20020328	CA 2001-2357901	20010926				
MX 2001PA09787	A	20020415	MX 2001-PA9787	20010927				
BR 2001004345	A	20020521	BR 2001-4345	20010928				
JP 2002338497	A	20021127	JP 2001-300136	20010928				
PRIORITY APPLN. INFO.:			US 2000-236375P	20000928				
OTHER SOURCE(S):	MARPAT	136:273215						

AB A composition for the treatment of anxiety or depression in a mammal, including a human, comprises (a) an NK-3 receptor antagonist or its salt, (b) a CNS-penetrant NK-1 receptor antagonist or its salt, and (c) a pharmaceutically acceptable carrier. When administered in combination, either as a single or as sep. pharmaceutical composition(s), the CNS-penetrant NK-1 receptor antagonist and an NK-3 antagonist, are presented in a ratio which is consistent with the manifestation of the desired effect. In particular, the ratio by weight of the CNS-penetrant NK-1 receptor antagonist and the NK-3 antagonist will suitably be between 0.001:1 to 1000:1, and especially between 0.01:1 and 100:1.

216372-53-1

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (combination of NK3 receptor antagonist and CNS-penetrant NK1 receptor antagonist for treating depression and anxiety)

RM 216372-53-1 CA

 $\begin{tabular}{ll} 4-Quinoline carboxamide, 3-[(4$-oxo$-1$-piperidinyl)methyl]$-2$-phenyl-N-[(1S)$-1-piperidinyl)methyl]-2-phenyl-N-[(1S)$-1-piperidinyl)methyl]$-2$-phenyl-N-[(1S)$-1-piperidinyl)methyl]-2-phenyl-N-[(1S)$-1-piperidinyl)methyl]$-2$-phenyl-N-[(1S)$-1-piperidinyl)methyl]-2-phenyl-N-[(1S)$-1-piperidinyl)methyl]$-2$-phenyl-N-[(1S)$-1-piperidinyl)methyl]-2-phenyl-N-[(1S)$-1-piperidinyl)methyl]$-2$-phenyl-N-[(1S)$-1-piperidinyl)methyl]-2-phenyl-N-[(1S)$-1-piperidinyl)methyl]$-2$-phenyl-N-[(1S)$-1-piperidinyl)methyl]-2-phenyl-N-[(1S)$-1-piperidinyl)methyl]$-2$-phenyl-N-[(1S)$-1-piperidinyl)methyl]-2-phenyl-N-[(1S)$-1-piperidinyl]$-2$-piperidinyl-N-[(1S)$-1-piperidinyl]-2-piperidinyl-N-[(1S)$-1-$ CN phenylpropyl] - (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

L4 ANSWER 15 OF 19 CA COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 135:55462 CA

TITLE: Stepwise modulation of neurokinin-3 and neurokinin-2

receptor affinity and selectivity in quinoline

tachykinin receptor antagonists

AUTHOR(S): Blaney, Frank E.; Raveglía, Luca F.; Artico, Marco; Cavagnera, Stefano; Dartois, Catherine; Farina, Carlo; Grugni, Mario; Gagliardi, Stefania; Luttmann, Mark A.; Martinelli, Marisa; Nadler, Guy M. M. G.; Parini,

Grugni, Mario; Gagilardi, Stefania; Luttmann, Mark A. Martinelli, Marias; Nadler, Guy M. M. G.; Parini, Carlo; Petrillo, Paola; Sarau, Henry M.; Scheideler, Mark A.; Hay, Douglas W. P.; Giardina, Giuseppe A. M. Department of Computational Structural Sciences,

CORPORATE SOURCE: Department of Computational Structural Sciences, SmithKline Beecham Pharmaceuticals, Harlow Essex, CM19

5AW, UK

SOURCE: Journal of Medicinal Chemistry (2001), 44(11),

1675-1689

CODEN: JMCMAR; ISSN: 0022-2623
PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

A stepwise chemical modification from human neurokinin-3 receptor (hNK-3R)-selective antagonists to potent and combined hNK-3R and hNK-2R antagonists using the same 2-phenylquinoline template is described. Docking studies with 3-D models of the hNK-3 and hNK-2 receptors were used to drive the chemical design and speed up the identification of potent and combined antagonists at both receptors. (S)-(+)-N-(1-Cyclohexylethyl)-3-[(4-morpholin-4-yl)piperidin-1-yl]methyl-2-phenylquinoline-4-carboxamide (SB-400238: hNK-3R binding affinity, Ki = 0.8 nM; hNK-2R binding affinity, Ki = 0.8 nM) emerged as the best example in this approach. Further studies led to the identification of (S)-(+)-N-(1,2,2-trimethylpropyl)-3-[(4-piperidin-1-yl)piperidin-1-yl]methyl-2-phenylquinoline-4-carboxamide (SB-414240: hNK-3R binding affinity, Ki = 193 nM; hNK-2R binding affinity, Ki = 1.0 nM) as the first hNK-2R-selective antagonist belonging to the 2-phenylquinoline chemical class. Since some members of this chemical series showed a significant binding affinity for the human µ-opioid receptor (hMOR), docking studies were also conducted on a 3-D model of the hMOR, resulting in the identification of a viable chemical strategy to avoid any significant u-opioid component. Compds. SB-400238 and SB-414240 are therefore suitable pharmacol, tools in the tachykinin area to elucidate further the pathophysiol, role of NK-3 and NK-2 receptors and the therapeutic potential of selective NK-2 (SB-400238) or combined NK-3 and NK-2 (SB-414240) receptor antagonists.

IT 216372-65-5P

RI: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(stepwise modulation of neurokinin-3 and NK-2 receptor affinity and selectivity in quinoline tachykinin receptor antagonists)

RN 216372-65-5 CA

CN 4-Quinolinecarboxamide, 2-phenyl-N-[(1S)-1-phenylpropyl]-3-(1piperazinylmethyl)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

REFERENCE COUNT:

33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 16 OF 19 CA COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 133:114594 CA

TITLE: AUTHOR(S):

CORPORATE SOURCE:

SOURCE:

PUBLISHER:

LANGUAGE:

Predicting blood-brain barrier permeation from three-dimensional molecular structure

Crivori, Patrizia; Cruciani, Gabriele; Carrupt, Pierre-Alain; Testa, Bernard

Institute of Medicinal Chemistry, University of Lausanne, Lausanne-Dorigny, CH-1015, Switz. Journal of Medicinal Chemistry (2000), 43(11),

2204-2216 CODEN: JMCMAR; ISSN: 0022-2623 American Chemical Society

DOCUMENT TYPE: Journal English

Predicting blood-brain barrier (BBB) permeation remains a challenge in drug design. Since it is impossible to determine exptl. the BBB partitioning of large nos. of preclin. candidates, alternative evaluation methods based on computerized models are desirable. The present study was conducted to demonstrate the value of descriptors derived from 3D mol. fields in estimating the BBB permeation of a large set of compds. and to produce a simple math. model suitable for external prediction. The method used (VolSurf) transforms 3D fields into descriptors and correlates them to the exptl. permeation by a discriminant partial least squares procedure. The model obtained here correctly predicts more than 90% of the BBB permeation data. By quantifying the favorable and unfavorable contributions of physicochem. and structural properties, it also offers valuable insights for drug design, pharmacol. profiling, and screening. The computational procedure is fully automated and quite fast. The method thus appears as a valuable new tool in virtual screening where selection or prioritization of candidates is required from large collections of compds. 285988-50-3 ΤТ

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (blood-brain barrier permeation prediction from 3D mol. structure)

285988-50-3 CA RN

CN 4-Quinolinecarboxamide, 3-(1H-imidazol-1-ylmethyl)-2-phenyl-N-(1phenylpropyl) - (CA INDEX NAME)

REFERENCE COUNT:

54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 17 OF 19 CA COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 133:4605 CA

TITLE:

Preparation of quinoline-4-carboxamide derivatives as NK-3 and NK-2 receptor antagonists

Farina, Carlo; Giardina, Giuseppe; Grugni, Mario; INVENTOR(S): Morvan, Marcel; Nadler, Guy Margueritte Marie Gerard;

Raveglia, Luca Francesco Smithkline Beecham S.P.A., Italy; Smithkline Beecham PATENT ASSIGNEE(S):

Laboratoires Pharmaceutiques SOURCE: PCT Int. Appl., 84 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.			KIN	KIND DATE			APPLICATION NO.						DATE				
WO	WO 2000031037				A1	20000602				WO 1	999-	1	9991	119			
	W:	ΑE,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	CA,	CH,	CN,	CR,	CU,
		CZ,	DE,	DK,	DM,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	GM,	HR,	HU,	ID,	IL,
							KP,										
		MD,	MG,	MK,	MN,	MW,	MX,	NO,	NZ,	PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,
							TT,										
	RW:						SD,										
							GR,								BF,	ВJ,	CF,
							GW,										
IN	1996 2351	DE02	569		A		2005	0311		IN 1	996-	DE25	69		1:	9961	122
CA	2351	865			A1		2000	0602		CA 1	999-	2351	865		1	9991	119
EP	1131																
	R:						ES,		GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
							RO										
TR	2001	0141	2		T2		2001	1022		TR 2	001-	1412			1	9991	119
	9915											1547					
	2001									HU 2	001-	4959			1	9991	119
	2001	0049	59		A3		2003	0128									
	5117	77			A		2003	1219				5117				9991	119
	7687						2004	0108				1777				9991	
	2001						2001					2473					
	2001						2003					4071					
MX	2001	PA05	095		A		2002	0424				PA50					
US	2003	0212	101		A1		2003	1113		US 2	003-	3589	38		2	0030	205
US	6780	875			B2		2004	0824									

A 19981120 PRIORITY APPLN. INFO.: GB 1998-25552 GB 1998-25553 A 19981120 W 19991119 WO 1999-EP9115 US 2001-856085 B1 20010904 US 2002-159218 B1 20020531

OTHER SOURCE(S): MARPAT 133:4605

Ι

The title compds. of formula I [Ar = optionally substituted aryl or a C5-7 cycloalkdienyl group, or an optionally substituted C5-7 cycloalkyl group, or an optionally substituted single or fused ring aromatic heterocyclic group; R = H, linear or branched C1-6 alkyl, C3-7 cycloalkyl, C3-7 cycloalkylalkyl, R1 = H or up to three optional substituents selected from the list consisting of: C1-6 alkyl, C1-6 alkenyl, aryl, C1-6 alkoxy, OH, halogen, NO2, CN, etc; R2 = (CH2) nNY1Y2; n = an integer ranging from 1 -9; Y1, Y2 independently = (un) substituted C1-6 alkyl or together with N to which they are attached represent optionally substituted N linked single or fused ring heterocyclic group; R3 = branched or linear C1-6 alkyl, C3-7 cycloalkyl, C4-7 cycloalkyl, etc; R4 = H, C1-6 alkyl; R5 = H, halogen] useful as NK-3 and NK-2 receptor antagonists (no data given) are prepared 270573-00-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of quinoline-4-carboxamide derivs. as NK-3 and NK-2 receptor antagonists)

RN 270573-00-7 CA

CM 4-Quinolinecarboxamide, 3-[(4-cyclohexyl-1-piperazinyl)methyl]-2-phenyl-N-[(1S)-1-phenylpropyl]-, hydrochloride (1:2) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

2 HCl

REFERENCE COUNT: 3

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 18 OF 19 CA COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 130:24978 CA

TITLE: Preparation of quinoline-4-carboxamides as NK2 and NK3 receptor antagonists

INVENTOR(S):

Giardina, Giuseppe Arnaldo Maria; Grugni, Mario; Graziani, Davide; Raveglia, Luca Francesco

PATENT ASSIGNEE(S): Smithkline Beecham S.p.A., Italy

SOURCE: PCT Int. Appl., 50 pp.

CODEN: PIXXD2 DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PA:	TENT	NO.			KIN	D	DATE			APPL	ICAT	ION :	NO.		D.	ATE	
WO 9852942				A1 19981126			WO 1998-EP3014						19980518				
	W:	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	CA,	CH,	CN,	CU,	CZ,	DE,
		DK,	EE,	ES,	FI,	GB,	GE,	GH,	GM,	GW,	HU,	ID,	IL,	IS,	JP,	KE,	KG,
		KP,	KR,	KZ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	MD,	MG,	MK,	MN,	MW,	MX,
		NO,	NZ,	PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ΤJ,	TM,	TR,	TT,
		UA,	UG,	US,	UZ,	VN,	YU,	zw									
	RW:	GH,	GM,	KE,	LS,	MW,	SD,	SZ,	UG,	ZW,	AT,	BE,	CH,	CY,	DE,	DK,	ES,
		FI,	FR,	GB,	GR,	IE,	IT,	LU,	MC,	NL,	PT,	SE,	BF,	ВJ,	CF,	CG,	CI,
		CM,	GA,	GN,	ML,	MR,	NE,	SN,	TD,	TG							
	2291						1998									9980	518
	9882															9980	
ΕP	9832	62			A1		2000	0308		EP 1	998-	9320	69		1	9980	518
EP	9832	62			B1		2003	0709									
	R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SΕ,	MC,	PT,
		IE,	SI,	FI,	RO												
TR	9902	883			T2		2000	0522								9980	518
HU	2000	0023	00		A2		2001	0628		HU 2	000-	2300			1	9980	518
HU	2000	0023	00		A3		2002	0128									
BR	9809	652			A		2001	0911		BR 1	998-	9652			1	9980	518

JP	2002500645	T	20020108	JP	1998-549967		19980518
AT	244711	T	20030715	AT	1998-932069		19980518
ES	2201509	T3	20040316	ES	1998-932069		19980518
ZA	9804303	A	19991122	ZA	1998-4303		19980521
NO	9905711	A	20000119	NO	1999-5711		19991122
MX	9910841	A	20000731	MX	1999-10841		19991123
US	20010012846	A1	20010809	US	2000-731190		20001206
US	20030004183	A1	20030102	US	2002-52925		20020116
US	20040116469	A1	20040617	US	2003-721644		20031125
US	20050159428	A1	20050721	US	2005-85028		20050314
US	20060205735	A1	20060914	US	2006-418274		20060504
US	20070197546	A1	20070823	US	2007-691899		20070327
PRIORITY	APPLN. INFO.:			GB	1997-10750	A	19970523
				IΤ	1997-MI2354	A	19971017
				ΙT	1997-MI2775	A	19971216
				WO	1998-EP3014	W	19980518
				US	1999-424122	В1	19991117
				US	2000-731190	A1	20001206
					2002-52925	A1	20020116
				US	2003-721644	В1	20031125
				US	2005-85028	В1	20050314
				US	2006-418274	A1	20060504
OTHER SO	URCE(S):	MARPAT	130:24978				

AB Title compde. [I; R = CONNCR4R5R6; R1 = H or 1-4 of halo, alkyl, alkoxy, aryl, etc.; R2 = (CH2)nNY117; R3 = (cyclo)alkyl, (hetero)aryl, etc.; R4 = H or alkyl; R5 = (cyclo)alkyl, Ph, heteroaryl, etc.; R6 = cycloalk(adden)yl or (heteroaryl; Y1, Y2 = H, alkyl, aryl, etc.; NY1Y2 = heterocyclyl] were prepared Thus, 3-methyl-2-phenyl-4-carboxylic acid was or-brominated and the product aminated by L-proline Me ester to give I R1 = H, R2 = (5)-2-methoxycarbonyl-1-pyrrolidinylmethyl, R3 = Ph](II; R = CO2H) which was amidated by (S)-ECDHFNH12 to give II (R = (S)-CONNCHPRHEI). Data for biol. activity of I were given.

IT 216372-35-9P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of quinoline-4-carboxamides as NK2 and NK3 receptor antagonists)

RN 216372-35-9 CA

CN L-Proline, 1-[[2-phenyl-4-[[[(1S)-1-phenylpropyl]amino]carbonyl]-3 quinolinyl]methyl]-, methyl ester, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

HC1

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 19 OF 19 CA COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 127:95204 CA ORIGINAL REFERENCE NO.: 127:18329a,18332a

TITLE: Preparation of quinoline-4-carboxamides and their use as neurokinin-3 and neurokinin-2 receptor antagonists

INVENTOR(S): Giardina, Giuseppe Arnaldo Maria; Grugni, Mario; Raveglia, Luca Francesco; Farina, Carlo

PATENT ASSIGNEE(S): Smithkline Beecham S.P.A., Italy

SOURCE: PCT Int. Appl., 79 pp. CODEN: PIXXD2

Patent DOCUMENT TYPE: LANGUAGE: English FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

> PATENT NO. KIND DATE APPLICATION NO. DATE ----WO 9719926 A1 19970605 WO 1996-EP5207 W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG 20011030 IT 1307330 В1 IT 1996-MI1688 CA 2238328 A1 19970605 CA 1996-2238328 19961122 AU 9710318 19970619 AU 1997-10318 A 19961122 ZA 9609811 19980522 ZA 1996-9811 19961122 A CN 1996-199747 CN 1207729 19990210 19961122 A A A2 19990406 BR 1996-11757 BR 9611757 HU 9901016 HU 1999-1016 20000328 19961122 20020128 20000719 EP 1996-941025 HU 9901016 A3 EP 1019377 A1 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO JP 2000513325 T TR 9800883 T2 20001010 JP 1997-520158 19961122

20001221 TR 1998-883

19961122

TW 409123	В	20001021	TW	1996-85114501		19961123
NO 9802333	A	19980722	NO	1998-2333		19980522
NO 311213	B1	20011029				
US 20020068827	A1	20020606	US	2001-994402		20011126
PRIORITY APPLN. INFO.:			IT	1995-MI2462	A	19951124
			IT	1996-MI1688	A	19960802
			WO	1996-EP5207	W	19961122
			US	1998-77262	B1	19980806
			US	2000-515336	B1	20000605

OTHER SOURCE(S): MARPAT 127:95204

$$\begin{array}{c} R^4 \\ A \\ R \\ R^2 \\ R^3 \end{array}$$

The title compds. [I; A = (un)substituted aryl, C5-7 cycloalkdienyl, AB (un) substituted single or fused ring aromatic heterocyclyl; R = (un) substituted C1-6 alkyl, C3-7 cycloalkyl, C3-7 cycloalkylalkyl, (un) substituted Ph, an optionally substituted five-membered heteroarom. ring, etc.; R1 = hydrogen or up to four substituents selected from C1-6 alkyl, C1-6 alkenyl, aryl, C1-6 alkoxy, hydroxy, halogen, nitro, cyano, carboxy, carboxamido, sulfonamido, C1-6 alkoxycarbonyl, trifluoromethyl, alkoxy, phthalimido, (un) substituted amino, etc.; R2 = hydrogen, C1-6 alkyl, hydroxy, halogen, cyano, (un) substituted amino, etc.; R3 = C1-6 alkyl, C3-7 cycloalkyl, C4-7 cycloalkylalkyl, (un)substituted aryl, (un) substituted single or fused ring aromatic heterocyclyl; R4 = hydrogen, C1-6 alkyl], useful as neurokinin 3 and neurokinin 2 receptor antagonists, are prepared Thus, (S)-N-(α-ethylbenzyl)-3-(2-aminoethoxy)-2phenylquinoline-4-carboxamide was reacted with a, a'-dibromo-oxylene and salified with HCl, producing (S)-N-(α-ethylbenzyl)-3-[2-(2-isoindoliny1)ethoxy]-2-phenylquinoline-4-carboxamide dihydrochloride (m.p. 95°; decomposition) which demonstrated a binding affinity in human neurokinin-3 receptors (expressed in CHO cell lines) against [125I]-[Me-Phe7]-neurokinin B of 1.2 nM.

IT 191796-25-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PRRP (Preparation); USES (Uses)

(preparation of quinoline-4-carboxamides and their use as neurokinin-3 and neurokinin-2 receptor antagonists)

RN 191796-25-5 CA

CN 4-Quinolinecarboxamide, 3-(4-morpholinylmethyl)-2-phenyl-N-[(1S)-1-phenylpropyl]-, hydrochloride (1:1) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

10/567,655

HC1

=> d his

(FILE 'HOME' ENTERED AT 14:29:30 ON 17 SEP 2008)

FILE 'REGISTRY' ENTERED AT 14:29:39 ON 17 SEP 2008

STRUCTURE UPLOADED

12 S L1 SAM

277 S L1 FULL L2

L3

FILE 'CA' ENTERED AT 14:30:04 ON 17 SEP 2008

19 S L3 L4

=>

---Logging off of STN---

Executing the logoff script...

=> LOG Y

STN INTERNATIONAL LOGOFF AT 14:30:39 ON 17 SEP 2008